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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	§		
Cherkasov et al.	§	Examiner:	Caixia Lu
	§		
Serial No.: 10/517,104	§	Group Art Unit:	1713
	§		
Filed: June 22, 2005	§	Docket No:	2003B073
	§		
For: Late Transition Metal Olefin	§	Confirmation No.:	1152
Polymerization and	§		
Oligomerization Catalysts And	§		
Related Preparation Methods	§		
	§	Date:	March 8, 2007

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Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. §1.131

I, Jo Ann M. Canich, declare as follows:

1. I am one of the inventors of the subject application and one of the authors of the attached Exhibits A, B, and C.

2. Exhibits A, B, and C are copies of pages 124, 137, and 144, respectively, of lab notebook #22128 that I and others routinely record and maintain in the ordinary course of business. Those pages 124, 137, and 144 correspond to run numbers 22128-124, 22128-137, and 22128-144, respectively, and indicate conception and reduction to practice of the claimed invention before March 12, 2001. All masked dates in Exhibits A, B, and C are prior to March 12, 2001. Run Numbers 22128-124, 22128-137 and 22128-144 correspond to entry numbers 1, 23, and 16 in Table 1 of the subject application (see page 573).

3. The subject matter of Exhibits A, B, and C was diligently prepared and filed as U.S. Patent Application Serial No. 10/517,104 beginning at a time prior to March 12, 2001, until

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the filing of priority application U.S. Provisional Application Serial No. 60/396,370 filed on July 17, 2002.

4. Exhibits A, B, and C show that the invention which forms the subject matter of the pending claims in the above-captioned patent application was conceived in the United States, before March 12, 2001, and diligently reduced to practice in the United States by at least July 17, 2002, the filing date of U.S. priority provisional application, Serial No. 60/396,370.

5. Exhibits A, B, and C include a description of transition metal compounds containing substituted catecholate ligands, as recited in, for example, claim 1. More particularly, Exhibits A, B, and C each include a description of a transition metal compound (R7, R8 and R9) that is represented by the formula LMX wherein M is a Group 3 to 11 metal; L is a bulky bidentate or tridentate neutral ligand that is bonded to M by two or three heteroatoms and at least one heteroatom is nitrogen; and X is a substituted or unsubstituted catecholate ligand, as required in claim 1 and those dependent therefrom. Catalyst R7 shown in Exhibit A was catalyst "Ni-1" that is listed and described at page 546 of the originally filed specification, whereby Ni-1 represents [1,4-bis-(2,6-di-isopropylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butylcatecholate]. Catalyst R8 shown in Exhibit B was catalyst "Ni-3" that is listed and described at page 546 of the originally filed specification, whereby Ni-3 represents [1,4-bis-(2,6-di-isopropylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dimethoxycatecholate]. Catalyst R9 shown in Exhibit C was catalyst "Ni-2" that is listed and described at page 546 of the originally filed specification, whereby Ni-2 represents [1,4-bis-(2,6-di-isopropylphenyl)-1,4-diaza-1,3-butadiene] nickel(II) [3,6-di-*tert*-butyl-4,5-dichlorocatecholate].

6. Exhibits A, B, and C are offered as supporting evidence that the compounds of the present invention were conceived in the United States before March 12, 2001, the earliest effective filing date (*i.e.* the "102(c) date") of U.S. Patent No. 6,410,768, to Llatas et al., and diligently reduced to practice by filing the priority application.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States

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Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

March 8, 2007
DATE

Jo Ann M. Canich
Jo Ann M. Canich, Ph.D.

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124

EXHIBIT A

Polymerization Data

Reactor 109 B

Reactor Volume 1 Liter

Date of Run [Date]

Time of Run [Time]

Operator

B. Salinas

Polymer Type

Polyethylene

Run Notebook #

22128-124

Ckt Prep Date

[Date]

The reactor was cleaned and purged with dry nitrogen at 95 C for 15 minutes.

Solvent

Toluene

Solvent Amount (mL)

400

Cocatalyst

10 wt. % MAO

Cocatalyst Amount (mL)

1.9

Cocatalyst Solvent

Toluene

Cocatalyst Concentration (mg/10 mL)

10.0

Catalyst

R7

Catalyst Amount

1.0

Catalyst Solvent

Toluene

Comonomer

None

Comonomer Amount (mL)

Ethylene Added (psid)

65

Polymerization Temperature (C)

80

Polymerization Time (minutes)

15

Product Recovery Method

Evaporation

Polymer Yield (g)

0.39

ACL Request

Characterization Studies

Comments

NOV Avg

Temp

79.9 C

Max

Exotherm

0.8 C

Avg Rpr

Pressure

74 psig

Total

Run Time

15:00

Reactor Temperature vs. Time

80 deg C

Ethylene Flow (SLPM)

RECORDED BY

B. Salinas

DATE

Date

WITNESSED BY

Cynthia Ballinger

DATE

Date

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EXHIBIT B

137

Polymerization Data			
Reactor 109 B		Reactor Volume 1 Liter	
Date of Run	Operator	Time of Run	
	B. Salinas		
Polymer Type		Polyethylene	
Run Notebook #	22128-137	Est Prep Date	DATE
The reactor was cleaned and purged with dry nitrogen at 95 C for 15 minutes.			
Solvent	Toluene	Solvent Amount (mL)	400
Cocatalyst	10 wt. % MAD	Cocatalyst Amount (mL)	5.0
Cocatalyst Solvent	Toluene	Cocatalyst Concentration (mg/10 mL)	10.0
Catalyst	RB	Catalyst Amount	2.9
Catalyst Solvent	Toluene		
Comonomer	None	Comonomer Amount (mL)	
Ethylene Added (psid)	65		
Polymerization Temperature (C)	80		
Polymerization Time (minutes)	15		
Product Recovery Method	Evaporation		
Polymer Yield (g)	1.92		
IRL Request	813-21131		
Characterization Studies	FTIR, NMR, GPC, DSC, TGA, etc.		
Comments			
Plot Avg Temp	Mass Extinction	Avg Rate Pressure	Total Run Time
70.8 C	0.5 C	74 psig	13:00
Reactor Temperature vs. Time (80 deg C)			
Ethylene Flow (SLPM)			

RECORDED BY:

B. Salinas

DATE:

Date

WITNESSED BY:

Cynthia Ballinger

DATE:

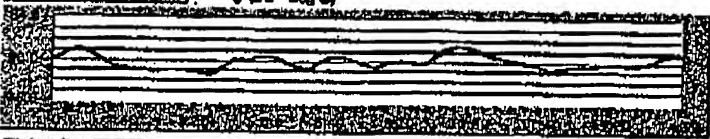
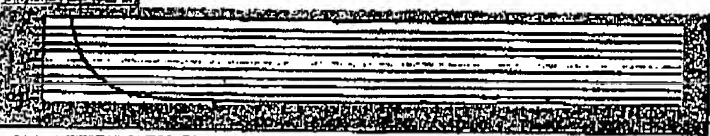
Date

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EXHIBIT C

144

Polymerization Data			
Reactor 109 B		Reactor Volume 1 Liter	
Date of Run	DATE	Time of Run	Time
Operator B. Salinas		Polymer Type	Polyethylene
Run Notebook #		22128-144	Cal. Free Date
DATE			
The reactor was cleaned and purged with dry nitrogen at 95 C for 15 minutes.			
Solvent	Toluene	Solvent Amount (mL)	400
Cocatalyst	10 wt. % MAO	Cocatalyst Amount (mL)	5.0
Cocatalyst Solvent	Toluene	Cocatalyst Concentration (mg/10 mL)	10.0
Catalyst	R9	Catalyst Amount	2.9
Catalyst Solvent	Toluene		
Comonomer	None	Comonomer Amount (mL)	
Ethylene Added (psig)	85		
Polymerization Temperature (C)	80		
Polymerization Time (minutes)	15		
Product Recovery Method	Evaporation		
Polymer Yield (g)	2.21	DATE	
MEL Request	B35 # 31632		
Characterization Studies			
Comments			
Run Avg Temp	Max Exotherm	Avg Rotor Pressure	Total Run Time
79.9 C	1.3 C	75 psig	15:00
Reactor Temperature vs. Time (80 deg C)			
			
Ethylene Flow (SLPM)			
			

RECORDED BY:

B. Salinas

DATE:

Date

WITNESSED BY:

Cynthia Belkanger

DATE:

Date

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